

European Vacation Placements: Reports 2017

Below are reports on the Summer Placements provided by students who participated in the scheme in 2017.

ETH, Zurich, Switzerland	2
<i>Report 1</i>	2
<i>Report 2</i>	2
<i>Report 3</i>	3
EPFL, Lausanne, Switzerland	4
EMPA, Thun, Switzerland.....	5
PSI, Villigen, Switzerland.....	6
University of Erlangen, Germany	7
<i>Report 1</i>	7
<i>Report 2</i>	8
TUHH, Hamburg, Germany	9
<i>Report 1</i>	9
<i>Report 2</i>	10
MagIC, HZG-Geesthacht, Germany	11
Rolls-Royce Deutschland, Germany	12
Linde AG, Germany.....	13
Max-Planck Institut für Eisenforschung, Düsseldorf, Germany.....	14
<i>Report 1</i>	14
<i>Report 2</i>	15
ESI, Leoben, Austria	16
<i>Report 1</i>	16
<i>Report 2</i>	17
University of Technology, Vienna, Austria	17

ETH, Zurich, Switzerland

Report 1

1. General		
Placement Location	ETH Zurich, Switzerland	
Arrival and Departure Dates	19.06.2017-14.08.2017	
No. of working days spent at Institution	40	
2. Financial		
Cost and method of return travel from the UK (£)	Airplane 300	
Total cost of daily travel to and from Institution	132	
Total cost of accommodation (say if provided free)	1400	
Value of Armourers & Brasiers bursary	1100	
Total received from College	0	
Total received from Institution	0	
3. Accommodation		
Accommodation address	Adlikerstrasse 79, Regensdorf, Switzerland	
Type of Accommodation	Shared apartment (not Institution run)	
Distance from Institution		
Quality of accommodation	on a scale of 1 (low) to 10 (high)	7
Quality of facilities	on a scale of 1 (low) to 10 (high)	8
Convenience of location	on a scale of 1 (low) to 10 (high)	5
4. Research Project		
Title of Research Project	Selective chemically induced aggregation of silica suspensions	
Written Report submitted to host institution	Y	
Experimental Techniques used:	IR spectroscopy, DLS, Zeta potential measurement, confocal fluorescent microscopy	
Interest level of project	on a scale of 1 (low) to 10(high)	7
Quality of support provided	on a scale of 1 (low) to 10(high)	9
Interaction with other researchers	on a scale of 1 (low) to 10(high)	8

Report 2

1. General	
Placement Location	ETH Zürich
Arrival and Departure Dates	08.07.17 to 02.09.17
No. of working days spent at Institution	36

2. Financial		
Cost and method of return travel from the UK (£)	£170 (plane)	
Total cost of daily travel to and from Institution	£100	
Total cost of accommodation (say if provided free)	£900	
Value of Armourers & Brasiers bursary	£1200	
Total received from College	£150	
Total received from Institution	£890	
3. Accommodation		
Accommodation address	Bächlerstrasse 44, 8046 Zürich	
Type of Accommodation	Student House	
Distance from Institution	10 minutes (5 minute walk, 5 minute bus)	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	9
Quality of facilities	on a scale of 1 (low) to 10 (high)	8
Convenience of location	on a scale of 1 (low) to 10 (high)	10
4. Research Project		
Title of Research Project	Manufacture and Testing of Biodegradable Mg Alloys	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	Use of an induction furnace, Metallography, Optical Microscopy, Selective Laser Melting	
Interest level of project	on a scale of 1 (low) to 10(high)	6
Quality of support provided	on a scale of 1 (low) to 10(high)	7
Interaction with other researchers	on a scale of 1 (low) to 10(high)	7

Report 3

1. General		
Placement Location	ETH Zurich	
Arrival and Departure Dates	15th July 2017 – 10th September 2017	
No. of working days spent at Institution	39	
2. Financial		
Cost and method of return travel from the UK (£)	£140, bus London – Bratislava – Zürich and back	
Total cost of daily travel to and from Institution	£100	
Total cost of accommodation (say if provided free)	£995	

Value of Armourers & Brasiers bursary	£1200	
Total received from College	£0	
Total received from Institution	£1487	
3. Accommodation		
Accommodation address	Bächlerstrasse 44, 8046 Zürich	
Type of Accommodation	Student Accommodation	
Distance from Institution	less than 10 minutes by bus, 15 minutes by foot	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	8
Quality of facilities	on a scale of 1 (low) to 10 (high)	7
Convenience of location	on a scale of 1 (low) to 10 (high)	8
4. Research Project		
Title of Research Project	Complex study of thermally induced phase decomposition in magnetron sputtered Cu-Ag and Cu-W thin films	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	reflection anisotropy spectroscopy, scanning electron microscopy, energy-dispersive X-ray spectroscopy, transmission electron microscopy, focused ion beam, X-ray crystallography	
Interest level of project	on a scale of 1 (low) to 10 (high)	8
Quality of support provided	on a scale of 1 (low) to 10 (high)	8
Interaction with other researchers	on a scale of 1 (low) to 10 (high)	10

EPFL, Lausanne, Switzerland

1. General	
Placement Location	École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
Arrival and Departure Dates	09.07.17 - 22.08.17
No. of working days spent at Institution	31
2. Financial	
Cost and method of return travel from the UK (£)	Flight (EasyJet between London Luton and Geneva-Aeroport) = £111.98, Train (Geneva-Aeroport – Lausanne-Gare) = 16.80 CHF, approx. £13.40 Metro (Lausanne-Flon – EPFL) = 3.70 CHF (approx. £3)
Total cost of daily travel to and from Institution	52 CHF (monthly 'Grand Lausanne' travelcard)

Total cost of accommodation (say if provided free)	Free	
Value of Armourers & Brasiers bursary	£410	
Total received from College	£350	
Total received from Institution	450CHF, approx. £360	
3. Accommodation		
Accommodation address	(9.7.17-13.8.17) Route Cantonale 99A, 1025 St Sulpice (13.8.17-22.8.17) Les Estudiantines, Route Cantonale 37, 1025 Saint-Sulpice	
Type of Accommodation	Student studio (one room with ensuite)	
Distance from Institution	20-minute walk / 15-minute bus (first accommodation) and 5-minute walk (second accommodation)	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	9 and 7
Quality of facilities	on a scale of 1 (low) to 10 (high)	9 and 6
Convenience of location	on a scale of 1 (low) to 10 (high)	7 and 10
4. Research Project		
Title of Research Project	Food-grade Fiber Composites	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	Rheology / Dynamic Mechanical Thermal Analysis (DMTA), Differential Scanning Calorimetry (DSC), Thermogravimetric Analysis (TGA) using hot-plate.	
Interest level of project	on a scale of 1 (low) to 10(high)	9
Quality of support provided	on a scale of 1 (low) to 10(high)	10
Interaction with other researchers	on a scale of 1 (low) to 10(high)	8

EMPA, Thun, Switzerland

1. General	
Placement Location	EMPA Thun, Switzerland
Arrival and Departure Dates	30th June – 9th September 2017
No. of working days spent at Institution	50 (10 weeks)
2. Financial	
Cost and method of return travel from the UK (£)	Flight from Manchester to Basel - £56.54 plus £40.00 for hold luggage, Fr. 4 bus fare to Basel train station and Fr. 80 for return train fare from Basel to Thun

Total cost of daily travel to and from Institution	Fr. 104 for 2 month bus pass although a bike was provided when needed	
Total cost of accommodation (say if provided free)	Provided free	
Value of Armourers & Brasiers bursary	£0 – no bursary given	
Total received from College	£100	
Total received from Institution	1650 CHF	
3. Accommodation		
Accommodation address	Stockliweg 6d, 3604 Thun	
Type of Accommodation	Room in an apartment with access to kitchen facilities	
Distance from Institution	5km – 30mins travel time with one bus change	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	8
Quality of facilities	on a scale of 1 (low) to 10 (high)	9
Convenience of location	on a scale of 1 (low) to 10 (high)	6
4. Research Project		
Title of Research Project	Investigating the adhesion energy of Al₂O₃ on Ag substrates using tensile testing technique	
Written Report submitted to host institution	Yes, along with presentation	
Experimental Techniques used:	Tensile testing, Optical microscopy, Digital Holographic microscopy, Scanning Electron microscopy	
Interest level of project	on a scale of 1 (low) to 10(high)	9
Quality of support provided	on a scale of 1 (low) to 10(high)	10
Interaction with other researchers	on a scale of 1 (low) to 10(high)	10

PSI, Villigen, Switzerland

1. General	
Placement Location	Paul Scherrer Institut, Villigen, Switzerland
Arrival and Departure Dates	10th July – 15th September
No. of working days spent at Institution	50
2. Financial	
Cost and method of return travel from the UK (£)	£250 (Eurostar then Paris-Basel TGV)
Total cost of daily travel to and from Institution	£0 (easy walking distance)

Total cost of accommodation (say if provided free)	£1550 (£25/night)	
Value of Armourers & Brasiers bursary	0	
Total received from College	0	
Total received from Institution	~4500 CHF (£3462 as of 18/09/17) (2100 CHF/month pre-tax)	
3. Accommodation		
Accommodation address	PSI Guesthouse, 5232 Villigen, Switzerland	
Type of Accommodation	Shared room with another student	
Distance from Institution	200 m	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	6
Quality of facilities	on a scale of 1 (low) to 10 (high)	6
Convenience of location	on a scale of 1 (low) to 10 (high)	10 for work, 6 for running, 1 for anything else
4. Research Project		
Title of Research Project	Interactions of dislocations with symmetric tilt grain boundaries in fcc metals	
Written Report submitted to host institution		
Experimental Techniques used:	Molecular Dynamics simulations	
Interest level of project	on a scale of 1 (low) to 10(high)	4
Quality of support provided	on a scale of 1 (low) to 10(high)	6
Interaction with other researchers	on a scale of 1 (low) to 10(high)	3 for interactions while working, 8 for meeting people while staying at the guesthouse

University of Erlangen, Germany

Report 1

1. General	
Placement Location	Erlangen- Nuremberg
Arrival and Departure Dates	03/07- 25/08
No. of working days spent at Institution	37
2. Financial	
Cost and method of return travel from the UK (£)	Return flights Manchester→ Nuremberg £101.98 Return train to Manchester airport £94.20
Total cost of daily travel to and from Institution	None- Given bike.
Total cost of accommodation (say if provided free)	Provided free

Value of Armourers & Brasiers bursary	£760	
Total received from College	£500	
Total received from Institution	Accommodation	
3. Accommodation		
Accommodation address	Hauptstrasse 112, Erlangen, 91054	
Type of Accommodation	Apartment	
Distance from Institution	4Km	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	4
Quality of facilities	on a scale of 1 (low) to 10 (high)	3
Convenience of location	on a scale of 1 (low) to 10 (high)	9
4. Research Project		
Title of Research Project	Comparing the Mechanical Properties of a CoAlW Based Superalloy and a CoWC Hard Metal Composite	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	Nano-indentation, High Temperature Compression Testing, Light and Electron Microscopy.	
Interest level of project	on a scale of 1 (low) to 10(high)	10
Quality of support provided	on a scale of 1 (low) to 10(high)	10
Interaction with other researchers	on a scale of 1 (low) to 10(high)	10

Report 2

1. General		
Placement Location	Friedrich Alexander University Erlangen-Nuremberg	
Arrival and Departure Dates	11/7/17 – 7/9/17	
No. of working days spent at Institution	11 days working at the institute of Metals Science and Technology in Erlangen 19 days at ZMP Joint Institute of Advanced Materials and Processes in Fürth	
2. Financial		
Cost and method of return travel from the UK (£)	Flights Manchester-Nuremberg £100 return Bus Nuremberg-Erlangen €3.50 each way	
Total cost of daily travel to and from Institution	To Erlangen, bus cost €2.20 each way, so I usually walked (50 mins) To Fürth, train cost €3.50 each way + 40 mins walking No bike provided	
Total cost of accommodation (say if provided free)	Provided Free	

Value of Armourers & Brasiers bursary	£760, £300 additional funding shared with other Cambridge student to make improvements to the accommodation	
Total received from College	£400	
Total received from Institution	£0	
3. Accommodation		
Accommodation address	Hauptstraße 112, 91054, Erlangen	
Type of Accommodation	Studio apartment, shared with the other Cambridge Student with Erlangen placement.	
Distance from Institution	To department in Erlangen: 4 km To department in Fürth: 17 km	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	4
Quality of facilities	on a scale of 1 (low) to 10 (high)	3
Convenience of location	on a scale of 1 (low) to 10 (high)	5
4. Research Project		
Title of Research Project	Investigation of Zinc Coated Copper Aluminium Alloys for use as Catalysts in Methanol Synthesis	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	Cutting, Hot and Cold embedding, Grinding, Polishing, SEM, EDX, Liquid dip coating, heat treatments, EBM (Electron beam melting)	
Interest level of project	on a scale of 1 (low) to 10(high)	5
Quality of support provided	on a scale of 1 (low) to 10(high)	5
Interaction with other researchers	on a scale of 1 (low) to 10(high)	3

TUHH, Hamburg, Germany

Report 1

1. General	
Placement Location	TUHH, Germany
Arrival and Departure Dates	1st August – 26th September
No. of working days spent at Institution	40
2. Financial	
Cost and method of return travel from the UK (£)	£95 – return flight, booked through flight comparison website (booked in mid-April , 4 months before arrival date)
Total cost of daily travel to and from Institution	No cost – accommodation is in walking distance to the institution

Total cost of accommodation (say if provided free)	Provided free	
Value of Armourers & Brasiers bursary	£660	
Total received from College	£400	
Total received from Institution	None	
3. Accommodation		
Accommodation address	Apartment no.6, Ruststraße 6, 21073 Hamburg, Germany	
Type of Accommodation	Apartment	
Distance from Institution	0.7 miles	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	8
Quality of facilities	on a scale of 1 (low) to 10 (high)	8
Convenience of location	on a scale of 1 (low) to 10 (high)	7
4. Research Project		
Title of Research Project	A Study of the Effects of Water Absorption and Desorption on an Epoxy Resin	
Written Report submitted to host institution:		
Experimental Techniques used:	TGA, DSC, FTIR ATR and transmission, 10KN machine in four-point bending setup, Durometer hardness test	
Interest level of project	on a scale of 1 (low) to 10(high)	8
Quality of support provided	on a scale of 1 (low) to 10(high)	6
Interaction with other researchers	on a scale of 1 (low) to 10(high)	10

Report 2

1. General		
Placement Location	TUHH, Germany	
Arrival and Departure Dates	30th June – 6th September	
No. of working days spent at Institution	44	
2. Financial		
Cost and method of return travel from the UK (£)	Flights: 133.52 £, Bus: 25.00 £, Train: 10.85 £, Total: 169.37 £	
Total cost of daily travel to and from Institution	192.00 £	

Total cost of accommodation (say if provided free)	Provided free	
Value of Armourers & Brasiers bursary	850.00 £	
Total received from College	250.00 £	
Total received from Institution	547.00 £	
3. Accommodation		
Accommodation address	Alte Woehr 7B, 22309 Hamburg, Germany	
Type of Accommodation	Apartment	
Distance from Institution	40 minutes train + 10 minutes walking.	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	9
Quality of facilities	on a scale of 1 (low) to 10 (high)	9
Convenience of location	on a scale of 1 (low) to 10 (high)	6
4. Research Project		
Title of Research Project	Effect of Electric Fields on the Self-Assembly of Colloidal Particles in Drop Casting	
Written Report submitted to host institution:	Yes	
Experimental Techniques used:	Drop casting and contact angle measurements using drop shape analyzer. Light microscopy, SEM and FIB	
Interest level of project	on a scale of 1 (low) to 10(high)	8
Quality of support provided	on a scale of 1 (low) to 10(high)	7
Interaction with other researchers	on a scale of 1 (low) to 10(high)	5

MagIC, HZG-Geesthacht, Germany

1. General	
Placement Location	Helmholtz Zentrum Geesthacht (HZG)
Arrival and Departure Dates	Arrival: 01/07/17; Departure: 01/09/17
No. of working days spent at Institution	42
2. Financial	
Cost and method of return travel from the UK (£)	Flights Outbound: £46.99 Return: £63.99
Total cost of daily travel to and from Institution	Free (walking distance)

Total cost of accommodation (say if provided free)	€540 total (€270 per month)
Value of Armourers & Brasiers bursary	£315
Total received from College	£0
Total received from Institution	€1300 total (€650 per month)

3. Accommodation		
Accommodation address	Teichberg 39, Geesthacht 21502	
Type of Accommodation	Shared Apartment	
Distance from Institution	15 minutes (walk)	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	8 (room) 5 (overall)
Quality of facilities	on a scale of 1 (low) to 10 (high)	3
Convenience of location	on a scale of 1 (low) to 10 (high)	6

4. Research Project		
Title of Research Project	Hardness and Microstructure of Mg-4Nd-xZn alloys	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	SEM, TEM, Hardness testing	
Interest level of project	on a scale of 1 (low) to 10(high)	6
Quality of support provided	on a scale of 1 (low) to 10(high)	7
Interaction with other researchers	on a scale of 1 (low) to 10(high)	8

Rolls-Royce Deutschland, Germany

1. General	
Placement Location	Rolls-Royce Deutschland – Dahlewitz, Berlin
Arrival and Departure Dates	10 Jul 2017 – 15 Sept 2017
No. of working days spent at Institution	50
2. Financial	
Cost and method of return travel from the UK (£)	Flights Gatwick – Berlin, £150
Total cost of daily travel to and from Institution	€100 per month, Berlin ABC zone card (no discount was available – must register latest 10th of month before ticket required.) This gives unlimited travel in Berlin.
Total cost of accommodation (say if provided free)	£1300

Value of Armourers & Brasiers bursary	£400	
Total received from College	£0	
Total received from Institution	Approx. £1700	
3. Accommodation		
Accommodation address	Strelitzer Str 60, 10115 Berlin, Germany	
Type of Accommodation	Apartment	
Distance from Institution	1 hr 10 minute commute (metro + bus)	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	7
Quality of facilities	on a scale of 1 (low) to 10 (high)	7
Convenience of location	on a scale of 1 (low) to 10 (high)	For berlin 10, for work 3
4. Research Project		
Title of Research Project	Evaluation of biaxial fatigue models for Allvac 718Plus	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	Finite Element Analysis	
Interest level of project	on a scale of 1 (low) to 10(high)	5
Quality of support provided	on a scale of 1 (low) to 10(high)	6
Interaction with other researchers	on a scale of 1 (low) to 10(high)	3

Linde AG, Germany

1. General		
Placement Location	Linde AG, Unterschleißheim	
Arrival and Departure Dates	03/07/17 – 08/07/17	
No. of working days spent at Institution	47 (2 days off and a bank holiday)	
2. Financial		
Cost and method of return travel from the UK (£)	£118 Flights with EasyJet ~£10 (€11.20) Train from airport to Munich and back	
Total cost of daily travel to and from Institution	~£205 (€225) [A monthly ticket costs €115, and a weekly ~€30. 25% student discount available if you go to Kundencenter at Hauptbahnhof with Linde contract, but bear in mind this only works for full calendar months/weeks from Monday]	
Total cost of accommodation (say if provided free)	~£1450 (€1600)	
Value of Armourers & Brasiers bursary	£626.17	
Total received from College	£400	
Total received from Institution	~£1600 (~€1840)(€800 per month)	

3. Accommodation		
Accommodation address	65A Georgenstraße, 80799 München	
Type of Accommodation	Shared flat (found on WG-gesucht – use this website)	
Distance from Institution	10 km	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	9
Quality of facilities	on a scale of 1 (low) to 10 (high)	9
Convenience of location	on a scale of 1 (low) to 10 (high)	9 (Munich student area)
4. Research Project		
Title of Research Project	The influence of gaseous atmospheres on additively manufactured thin Ti-6Al-4V parts	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	3D printing, 3D CAD software, powder size distribution and flowability analysis, sample preparation, optical microscopy, 3D scanner	
Interest level of project	on a scale of 1 (low) to 10(high)	8
Quality of support provided	on a scale of 1 (low) to 10(high)	8
Interaction with other researchers	on a scale of 1 (low) to 10(high)	6

Max-Planck Institut für Eisenforschung, Düsseldorf, Germany

Report 1

1. General	
Placement Location	Max Planck Institut für Eisenforschung Düsseldorf
Arrival and Departure Dates	01/07 – 28/08
No. of working days spent at Institution	~40 days
2. Financial	
Cost and method of return travel from the UK (£)	£120
Total cost of daily travel to and from Institution	€83 per month
Total cost of accommodation (say if provided free)	€485 per month
Value of Armourers & Brasiers bursary	£50
Total received from College	£300
Total received from Institution	€800 per month
3. Accommodation	

Accommodation address	150 Witzelstraße	
Type of Accommodation	WG (Shared Flat)	
Distance from Institution	30 minutes tram journey	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	7
Quality of facilities	on a scale of 1 (low) to 10 (high)	7
Convenience of location	on a scale of 1 (low) to 10 (high)	7
4. Research Project		
Title of Research Project	Advanced Mechanical Characterisation of Hard Coatings by Digital Image Correlation	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	SEM, In-Situ Tensile Testing, GOM Correlate	
Interest level of project	on a scale of 1 (low) to 10(high)	9
Quality of support provided	on a scale of 1 (low) to 10(high)	10
Interaction with other researchers	on a scale of 1 (low) to 10(high)	10

Report 2

1. General		
Placement Location	MPIE, Düsseldorf, Germany	
Arrival and Departure Dates	01.07.17 – 01.09.17	
No. of working days spent at Institution	44	
2. Financial		
Cost and method of return travel from the UK (£)	£121.98 return flights with Eurowings	
Total cost of daily travel to and from Institution	€166 (€83 per month for a travel pass which I also used on weekends and evenings)	
Total cost of accommodation (say if provided free)	€1005 total	
Value of Armourers & Brasiers bursary	£50	
Total received from College	£500	
Total received from Institution	€1600	
3. Accommodation		
Accommodation address	Witzelstraße 150, 40225 Düsseldorf	
Type of Accommodation	Private room in a shared flat (WG)	
Distance from Institution	20 minute tram + 10 minute walk (7km)	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	6
Quality of facilities	on a scale of 1 (low) to 10 (high)	6

Convenience of location	on a scale of 1 (low) to 10 (high)	8
4. Research Project		
Title of Research Project	Multiscale tribology and indentation of pearlitic steel	
Written Report submitted to host institution	Yes	
Experimental Techniques used:	Metal sample preparation via grinding and polishing, nanoindentation, nano-scratching, scanning electron microscopy, optical microscopy, confocal microscopy	
Interest level of project	on a scale of 1 (low) to 10(high)	7
Quality of support provided	on a scale of 1 (low) to 10(high)	10
Interaction with other researchers	on a scale of 1 (low) to 10(high)	10

ESI, Leoben, Austria

Report 1

1. General		
Placement Location	ESI Leoben, Austria	
Arrival and Departure Dates	01/08/2017 – 29/09/2017	
No. of working days spent at Institution	40	
2. Financial		
Cost and method of return travel from the UK (£)	£306 return from Birmingham to Graz with KLM. Could be cheaper if booked further in advance. Convenience of both cities made it worth the cost.	
Total cost of daily travel to and from Institution	£0. Short walk to the institute, and bicycle provided for free. Would highly recommend a Sommerkarte; from 10 July to 10 September allows almost unlimited rail travel in Austria for a total of €88.	
Total cost of accommodation (say if provided free)	€750	
Value of Armourers & Brasiers bursary	£310	
Total received from College	£400	
Total received from Institution	~ £2100	
3. Accommodation		
Accommodation address	5, Fischergasse 14, Leoben 8700	
Type of Accommodation	Student flat	
Distance from Institution	8 minute walk / 2 minute cycle	
Quality of accommodation	on a scale of 1 (low) to 10 (high)	9
Quality of facilities	on a scale of 1 (low) to 10 (high)	9
Convenience of location	on a scale of 1 (low) to 10 (high)	10

4. Research Project		
Title of Research Project	The influence of brittle films and substrate on the electro-mechanical behaviour of ductile films on polymer substrates	
Written Report submitted to host institution	Yes (and presentation)	
Experimental Techniques used:	Tensile testing; 4-point resistance; optical, confocal laser scanning and electron microscopy; Gwyddion software, Microsoft Excel	
Interest level of project	on a scale of 1 (low) to 10(high)	9
Quality of support provided	on a scale of 1 (low) to 10(high)	9
Interaction with other researchers	on a scale of 1 (low) to 10(high)	9

Report 2

Only one student visited ESI this year

University of Technology, Vienna, Austria

1. General	
Placement Location	Vienna, Austria
Arrival and Departure Dates	10/07/17-22/08/17
No. of working days spent at Institution	27
2. Financial	
Cost and method of return travel from the UK (£)	Flights – arrival from Germany: £106 Return: £200
Total cost of daily travel to and from Institution	0 - walked
Total cost of accommodation (say if provided free)	Provided free
Value of Armourers & Brasiers bursary	£760
Total received from College	£0
Total received from Institution	£0
3. Accommodation	
Accommodation address	27 Spengergasse, 1050 Wien
Type of Accommodation	Student halls
Distance from Institution	35 minute walk

Quality of accommodation	on a scale of 1 (low) to 10 (high)	6
Quality of facilities	on a scale of 1 (low) to 10 (high)	9
Convenience of location	on a scale of 1 (low) to 10 (high)	9
4. Research Project		
Title of Research Project	An investigation into the development of the gamma-gamma prime phase in cobalt-based superalloys	
Written Report submitted to host institution		
Experimental Techniques used:	Powder mixing and sieve, cutting machines, use of furnace, mounting, grinding, polishing and etching of samples, optical microscopy and SEM.	
Interest level of project	on a scale of 1 (low) to 10(high)	3
Quality of support provided	on a scale of 1 (low) to 10(high)	2
Interaction with other researchers	on a scale of 1 (low) to 10(high)	2